

Claims:

1. Apparatus for transferring a batches in predetermined count or length of laminar articles standing on edge, from at least two supply lines/ chutes synchronously to a delivery line of another handling station such as a packing station, said apparatus consisting of
 - [i] an operatively horizontal platform on which the laminar articles are displaced from the at least two supply lines/chutes;
 - [ii] a bank of pusher bars one for each supply line/chute positioned on the said platform for pushing a predetermined length of a plurality of said laminar articles in the form of a batch on the said platform;
 - [iii] displacement means for reciprocating the pusher bars synchronously on the said platform;
 - [iv] a striker plate, one for each supply/line chute extending operatively, vertically from the said platform;
 - [v] a hatch positioned adjacent to the each of said striker plates, the size and dimension of the said hatch being larger than the size of the batch of laminar articles;
 - [vi] a delivery line, having a plurality of pocket formations positioned operatively below the said hatch in the said platform and adapted to receive in the said pockets, said batches of laminar articles following through the said hatch for transfer to the other handling station, the axis of the movement of the said delivery line being substantially

perpendicular to the axes of movement of the laminar articles in the supply lines/chutes.

2. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in Claim 1 in which the apparatus includes a plurality of supply lines/chutes and the said platform being adapted to receive laminar articles from the said supply lines/chutes; there being provided pusher bars, striker plates and hatches one for each supply lines/chutes; each of the pusher bars operating simultaneously for all supply lines/chutes; a common displacement means for all the pusher bars and a common delivery line positioned below the hatches in the said platform .
3. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in Claims 1 or 2, in which the pusher bars are moving at a speed of 700 to 900 mm per second, sufficient to permit the batch of laminar articles to strike the striker plate, aligning themselves, rebound from the striker plate without deformation and fall through the said hatch.
4. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the pusher bar displacement means is a servomotor with suitable controls.

5. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the pusher bar displacement means is a servomotor with suitable controls.
6. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the pusher bar displacement means is cam and liver control.
7. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the pusher bar displacement means is pneumatically or hydraulically operated.
8. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the pusher bar displacement means is a screw driven.
9. Apparatus for forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the moving delivery line is a belt conveyer moving substantially horizontally below the said hatch or hatches in the said platform and the pockets are formed in the belt conveyer by means of an open meshed chain having a predetermined pitch.

10. Apparatus forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which pusher bars and the platform are of stainless steel.

11. Apparatus forming batches in predetermined count or length of laminar articles as claimed in any one of the preceding claims in which the movement of the laminar articles in the supply lines/chutes, the reciprocatory movement of the pusher bars and the movement of the delivery line are synchronized.

12. A method of forming batches of laminar articles standing on edge provided from a plurality of supply lines/chutes to be delivered to the delivery line or to a work station in which the batches are further processed typically for packing or wrapping consisting of the following steps:

- (i) providing a platform to which the arrays of laminar articles from the supply lines are led from the said plurality of supply lines/chutes;
- (ii) providing hatches on the platform one for each of the supply lines/chutes ;
- (iii) providing a striker plate positioned operatively vertically on the said platform adjacent to the said hatches;

- (iv) providing a common delivery line below the said platform, the axis of movement of the said common delivery line being substantially perpendicular to the axes of movement of the laminar articles through the supply lines/chutes;
- (v) displacing batches of laminar articles by means of commonly reciprocating pusher bars, such that the displays batches of laminar articles strikes against the striker plate adjacent to the respective hatches are aligned and rebound to fall through the hatches on to the pockets of the delivery lines placed below the said hatches.